

**CONTINUOUS METHOD AND APPARATUS FOR SEPARATING
POLYMER FROM A HIGH PRESSURE CARBON DIOXIDE FLUID
STREAM**

Abstract of the Disclosure

5 A method for continuously separating polymer from a high pressure fluid
stream comprises subjecting the high pressure fluid stream comprising polymer
particles to a filter, wherein the filter segregates the high pressure fluid stream from
the polymer particles; subjecting the polymer particles to a rotating device which
transports the polymer particles away from the filter, wherein the polymer particles
10 are exposed to thermal conditions sufficient to melt the polymer particles and form a
seal surrounding at least a portion of the rotating device; and separating the molten
polymer from the rotating device. The method is carried out such that the separation
of polymer from the high pressure fluid stream occurs under steady-state.